

IN THE CLAIMS

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

Claims 1-16. (Cancelled)

1 17. (Currently Amended) A microsequencer for use as a real-time Bluetooth baseband
2 controller comprises:

3 timer circuitry operably coupled to receive a requested timer counting value and to
4 announce when the timer counting value has elapsed;

5 temporary data storage circuitry ~~operably coupled to store data, wherein the temporary~~
6 data storage unit includes registers of different size;

7 a data storage logic module, wherein the data storage logic module determines which
8 available register should be used for storing data based upon the size of the data that is to be
9 temporarily stored; and

10 a plurality of Bluetooth and native clocks operably coupled to support timing
11 functionality of the timer circuitry according to Bluetooth specifications ~~when in a master mode;~~
12 and

13 ~~a plurality of externally driven Bluetooth and native clocks operably coupled to support~~
14 ~~timing functionality of the timer circuitry according to Bluetooth specifications when in a slave~~
15 ~~mode.~~

Claims 18 – 21 (Cancelled).

1 22. (Original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 64-bit storage register.

1 23. (Original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 48-bit storage register.

1 24. (Original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 32-bit storage register.

1 25. (Original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 16-bit storage register.

1 26. (Original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 64-bit register, a 48-bit register, a 32-bit register and a 16-bit register.

 27. (cancelled)

1 28. (previously presented) The microsequencer of claim 17 wherein the ~~timers~~
2 ~~include~~ timer circuitry comprises at least four timers.

1 29. (previously presented) The ~~micro-sequencer~~ microsequencer of claim 17 wherein
2 the ~~timers include~~ timer circuitry comprises at least eight timers.

1 30. (previously presented) The microsequencer of ~~claim 27~~ claim 17 further
2 comprises timer control logic circuitry for controlling the operation of the at least eight timers.

1 31. (Original) A microsequencer for use as a real-time Bluetooth baseband controller,
2 comprising:

3 eight timers to provide traditional timer functionality;
4 timer control logic circuitry;
5 an externally driven Bluetooth clock;
6 an externally driven real-time clock;
7 a native Bluetooth clock;
8 a native real-time clock;
9 a 64-bit register for temporarily storing computational data;
10 a 48-bit storage register for temporarily storing computational data;
11 a 32-bit storage register for temporarily storing computational data;
12 a 16-bit storage register for temporarily storing computational data; and
13 data storage logic circuitry for determining which of the temporary storage registers is to
14 store a piece of data that is to be temporarily stored.

1 32. (Original) The microsequencer of claim 31 wherein the period of one Bluetooth
2 clock cycle is equal to 312.5 real-time clock cycle periods.

1 33. (New) The microsequencer of claim 17 wherein the plurality of native and
2 externally driven clocks include an externally driven Bluetooth clock.

1 34. (New) The microsequencer of claim 17 wherein the plurality of native and
2 externally driven clocks include a native Bluetooth clock.

1 35. (New) The microsequencer of claim 17 wherein the plurality of native and
2 externally driven clocks include an external real-time clock.

1 36. (New) The microsequencer of claim 17 wherein the plurality of native and
2 externally driven clocks include a native real-time clock.